

## WHAT IS CLAIMED IS

1. A lawn mower comprising:
  - a frame;
  - an engine having an electrical system and attached to said frame;
  - a mower deck assembly having a rotating blade connected to said frame, said blade selectively engaged with said engine;
  - a reversible transmission driven by said engine and comprising a shift mechanism having a forward position and a reverse position;
  - a switch in electrical communication with said electrical system and mower deck assembly, said switch being in a first position when said blade is in engagement with said engine and in a second position when said blade is out of engagement with said engine; and
  - a solenoid attached to said transmission and in electrical communication with said switch and having a plunger, said plunger being in an extended position when said switch is in its said first position wherein movement of said shift mechanism into its said reverse position is blocked by said plunger, said plunger being in a retracted position when said switch is in its said second position wherein movement of said shift mechanism into its said reverse position is not blocked by said plunger.
2. The lawn mower of Claim 1, wherein said transmission is a transaxle having a transaxle casing and an axle being rotatably supported by said transaxle casing.
3. The lawn mower of Claim 1, wherein said transmission is a manual shift transmission.
4. The lawn mower of Claim 1, wherein said shift mechanism abuts said plunger when said plunger is in its said extended position and said shift mechanism is

being moved toward its said reverse position, and said shift mechanism does not abut said plunger when said plunger is in its said retracted position or said shift mechanism is being moved toward its said forward position.

5. The lawn mower of Claim 1, wherein said transmission is a hydrostatic transmission.

6. A reversible transmission for a lawn mower comprising:  
a housing;  
an input shaft and an output shaft rotatably supported in said housing;  
an operator controlled shift mechanism having a forward position and a reverse position; and

a solenoid connected to said housing and having a plunger, said plunger having an extended position wherein movement of said shift mechanism into its said reverse position is blocked by said plunger, and a retracted position wherein movement of said shift mechanism into its said reverse position is not blocked by said plunger.

7. The transmission of Claim 6, wherein said transmission is a transaxle having a transaxle casing, and said output shaft is an axle rotatably supported by said transaxle casing.

8. The transmission of Claim 6, wherein said transmission is a manual shift transmission, said shift mechanism abuts said plunger when said plunger is in its said extended position and said shift mechanism is being moved toward its said reverse position, and said shift mechanism does not abut said plunger when said plunger is in its said retracted position or said shift mechanism is being moved toward its said forward position.

9. The transmission of Claim 6, wherein said transmission is a hydrostatic transmission, said shift mechanism abuts said plunger when said plunger is in its said

extended position and said shift mechanism is being moved toward its said reverse position, and said shift mechanism does not abut said plunger when said plunger is in its said retracted position or said shift mechanism is being shifted into its said forward position.

10. A reverse shift lockout system for a lawn mower comprising:  
an engine;  
a transmission having a selectively entered reverse condition and a selectively entered forward condition, said transmission being driven by said engine;  
an electrical source;  
a mower deck assembly selectively engaged with said engine;  
a switch in electrical communication with said electrical source and said mower deck assembly, said switch being in a first position when said mower deck assembly is engaged and in a second position when said mower deck assembly is not engaged; and  
means in communication with said switch for preventing said transmission from entering its reverse condition when said switch is in its said first position and permitting said transmission to enter its reverse condition when said switch is in its said second position.

11. A method of preventing an operator from placing a mower in reverse when its mower deck is operating, comprising:

extending the plunger of a solenoid in response to the mower deck being engaged;

blocking movement of a transmission shift mechanism into reverse with the extended solenoid plunger, whereby the mower cannot be placed in reverse with the mower deck being engaged;

retracting the solenoid plunger in response to the mower deck being disengaged, whereby the mower may be placed in reverse.

12. The method of Claim 11, further comprising:  
energizing the solenoid prior to extending the plunger; and  
de-energizing the solenoid prior to retracting the plunger.

13. A lawn mower comprising:  
a frame;  
an engine having an electrical system and attached to said frame;  
a mower deck assembly connected to said frame and having a rotating blade, said blade being selectively engaged with said engine;  
a reversible transmission driven by said engine and comprising a shift mechanism having a forward position and a reverse position; and  
means for preventing said shift mechanism from being shifted into its reverse position when said blade is in engagement with said engine.

14. The lawn mower of Claim 13, wherein said means for preventing includes:

a switch in communication with said electrical system and said mower deck assembly, said switch being in a first position when said mower deck assembly is engaged and in a second position when said mower deck assembly is not engaged; and  
a solenoid attached to said transmission and in electrical communication with said switch, said solenoid having a plunger;

wherein said plunger is in an extended position when said switch is in its said first position and movement of said shift mechanism into its reverse position is blocked by said plunger, and said plunger is in a retracted position when said switch is in its

said second position and movement of said shift mechanism into its reverse position is not blocked by said plunger.

15. A reversible transmission for a lawn mower having a selectively engaged mower deck comprising:

a housing;

an input shaft and an output shaft rotatably supported in said housing;

an operator controlled shift mechanism having a forward position and a reverse position; and

means for preventing said transmission from being shifted into reverse in response to the mower deck being engaged.

16. The transmission of Claim 15, wherein said means for preventing includes a solenoid having a plunger, said plunger having an extended position wherein movement of said shift mechanism into its reverse position is blocked by said plunger, said plunger having a retracted position wherein movement of said shift mechanism into its reverse position is not blocked by said plunger.

17. The transmission of Claim 16, wherein said transmission is a manual shift transmission, said shift mechanism abuts said plunger when said plunger is in its said extended position and said shift mechanism is being moved toward its said reverse position, and said shift mechanism does not abut said plunger when said plunger is in its said retracted position or said shift mechanism is being moved toward its said forward position.

18. The transmission of Claim 16, wherein said transmission is a hydrostatic transmission, said shift mechanism abuts said plunger when said plunger is in its said extended position and said shift mechanism is being moved toward its said reverse position, and said shift mechanism does not abut said plunger when said plunger is in

its said retracted position or said shift mechanism is being moved toward its said forward position.

19. The transmission of Claim 15, wherein said transmission is a transaxle having a transaxle casing, said output shaft is an axle rotatably supported in said transaxle casing.